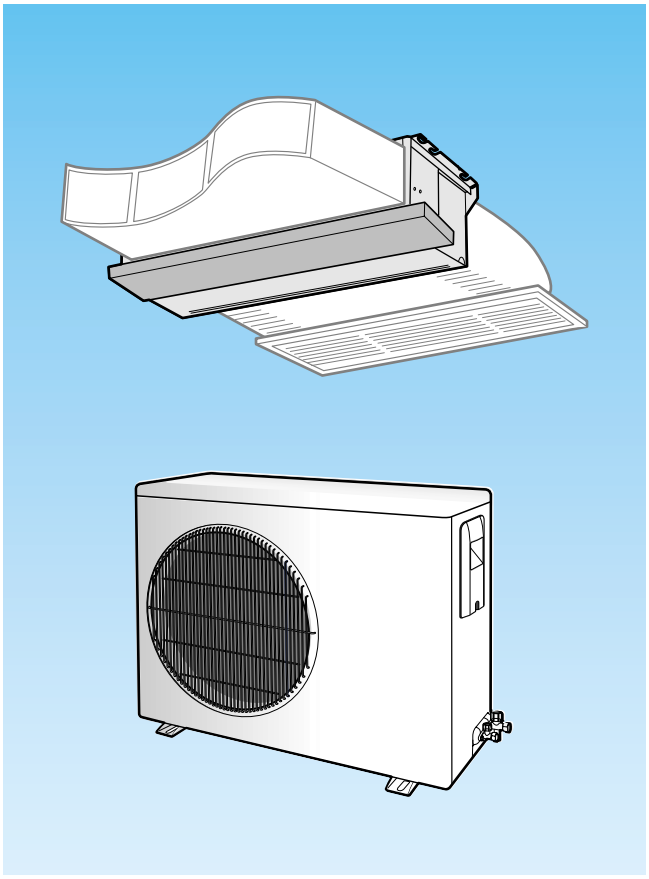
SAMSUNG

DUCT TYPE AIR CONDITIONER

INDOOR UNIT	OUTDOOR UNIT
DH070EZM	UH070EZMC

SERVICE *Manual*

AIR CONDITIONER



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1. Product Specifications

1-1 Table

MODEL		INDOOR UNIT		DH070EZM
		OUTDOOR UNIT		UH070EZMC
Capacity		Cooling	Btu/hr	23,900
			Watts	7,000
		Heating	Btu/hr	26,300
			Watts	7,700
Power Supply		1ø, 220-240V~, 50Hz		
Indoor Unit	Power Input	Cooling	Watts	200
		Heating	Watts	200
	Running Current	Cooling	A	1.0
		Heating	A	1.0
	Fan Speed	H.H	r.p.m	1,050
		Hi	r.p.m	950
		Mid	r.p.m	900
		Low	r.p.m	850
	Air Circulation	U-High	m^3/min	19.5
		High	m^3/min	17.5
		Mid	m^3/min	16.5
		Low	m^3/min	15.5
	Noise Level (Sound Pressure)	High	dB(A)	46
		Mid	dB(A)	45
		Low	dB(A)	44
	Heat Exchanger	Type		D-fin coil
		Row x Stages x Fin Pitch		2 x 10 x 1.7(1,100mm)
	Fan	Type		Sirocco
		Motor Output	W	97
	Dimension	H	mm	260
		W	mm	1,340
		D	mm	600
	Weight	Net / Gross	kg	41 / 47
Outdoor Unit	Power Input	Cooling	Watts	2,250
		Heating	Watts	2,250
	Running Current	Cooling	A	11.2
		Heating	A	11.2
	Fan Speed	High	r.p.m	820
		Low	r.p.m	400
	Sound Pressure Level		dB(A)	57
	Fan	Type		Propeller Fan
		Motor Output	W	60
	Compressor	Type		Rotary
		Model		SHV33YC6-G
		Capacity	kW	2.22
		Protection		Internal
	Heat Exchanger	Type		wave fin coil
		Row x Stages x Fin Pitch		2 x 24 x 1.5(900mm)
		Face Area	m^2	0.55
	Refrigerant	Control		EEV
		Type		R-22
		Charge	kg	2.1

Table(cont.)

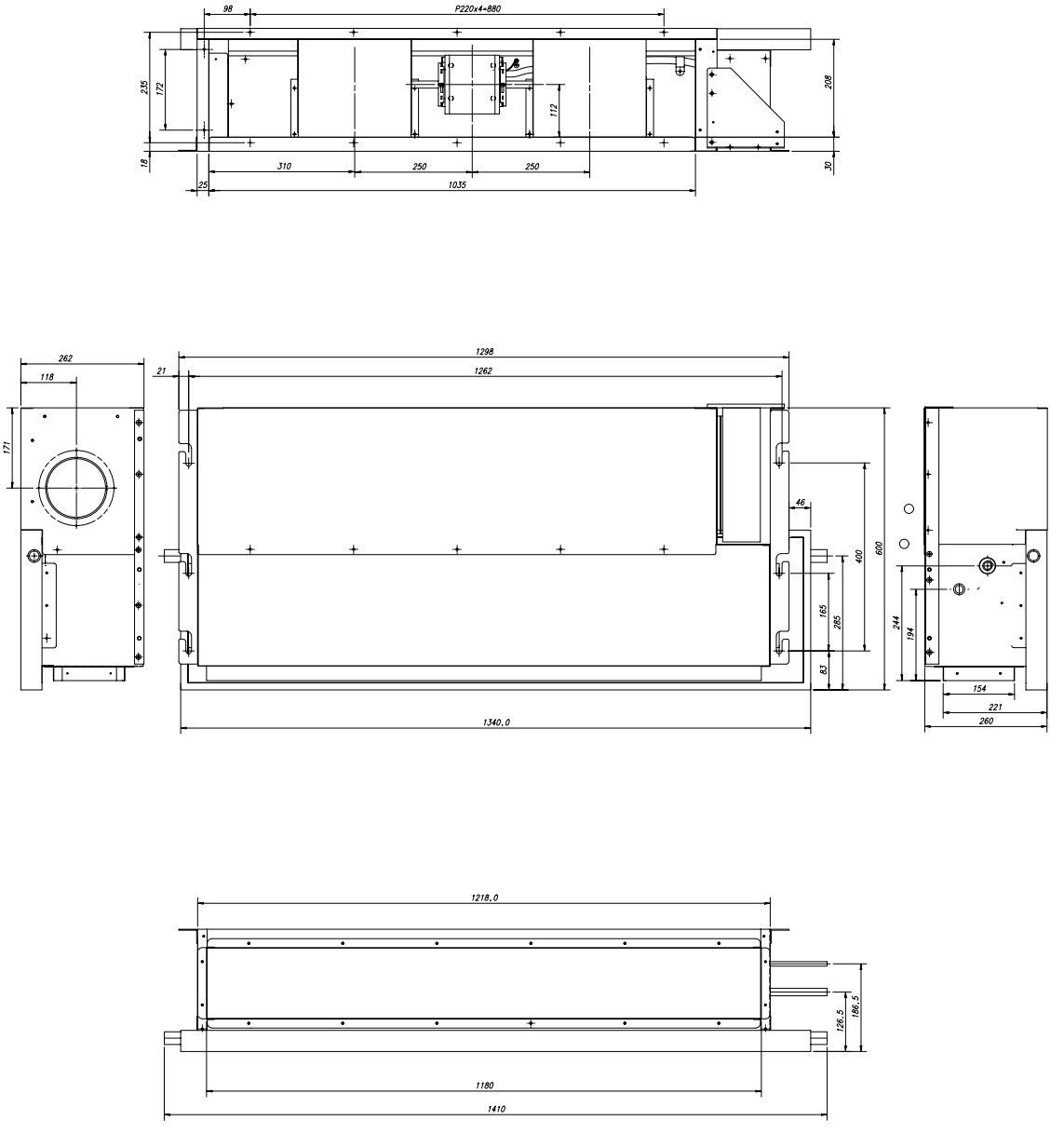
MODEL		INDOOR UNIT		DH070EZM
		OUTDOOR UNIT		UH070EZMC
Outdoor Unit	Dimension	H	mm	638
		W	mm	880
		D	mm	310
	Weight	Net / Gross	kg	67 / 72
Condition	Indoor Unit	Cool(DB/WB)	˚C	27 / 19
		Heat(DB/WB)	˚C	20 / 15
	Outdoor Unit	Cool(DB/WB)	˚C	35 / 24
		Heat(DB/WB)	˚C	7 / 6
Piping	Pipe O.D. Size	Liquid	mm(inch)	9.52(3/8")
		Gas	mm(inch)	15.88(5/8")
	Connection Method			Flare
	Between	Height	m	Max. 15
		Pipe Length	m	Max. 30

Notice : This model is tested under the external static pressure of 4mmAq.
Air Flow rate : Fan Step Control : Low → Mid → High → Ultra High

1-2 Dimensions

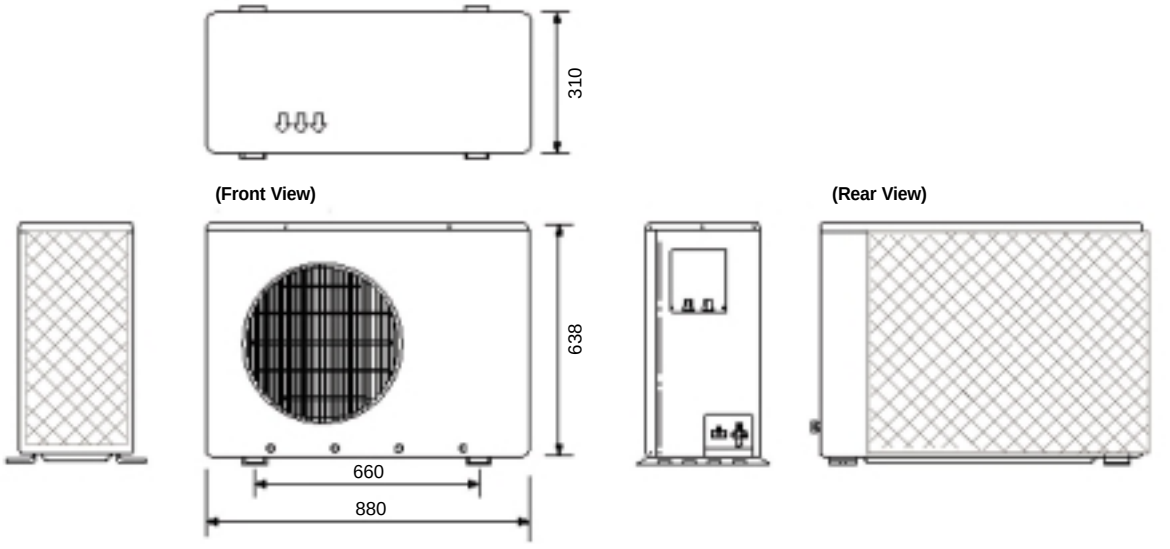
1-2-1 Indoor Unit

(Unit : mm)



1-2-2 Outdoor Unit

(Unit : mm)

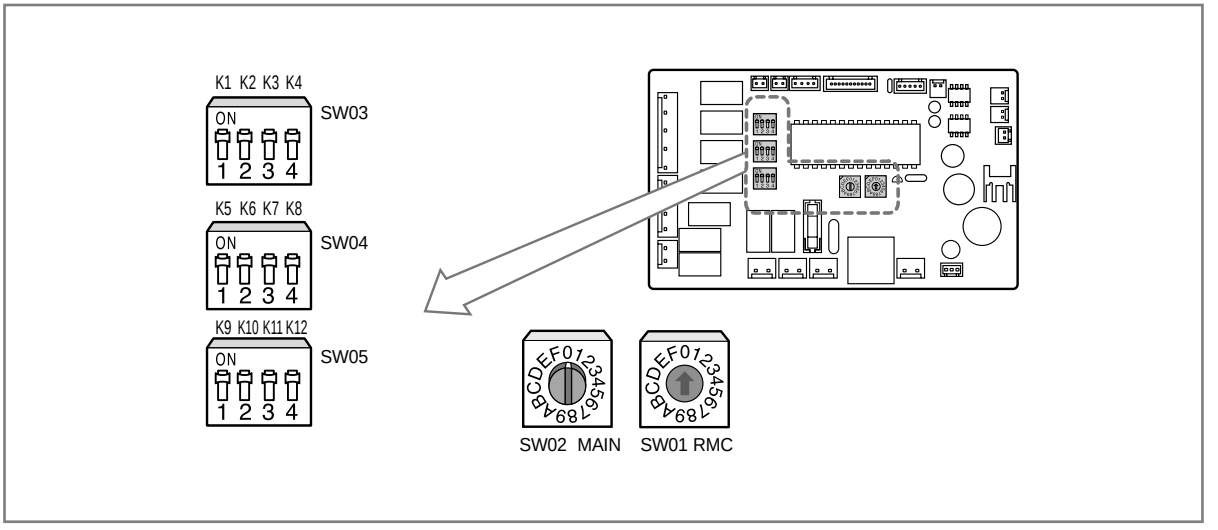


2. Installation

2-1 Assigning Address to Indoor Unit

1. Before installing the indoor unit, assign an address to the indoor unit according to the air conditioning system plan.

2. The address of the indoor unit is assigned by adjusting MAIN(SW02) and RMC(SW01) rotary switches.



3. The MAIN address is for communication between the indoor unit and the outdoor unit.
   Therefore, you must set it to operate the air conditioner properly.

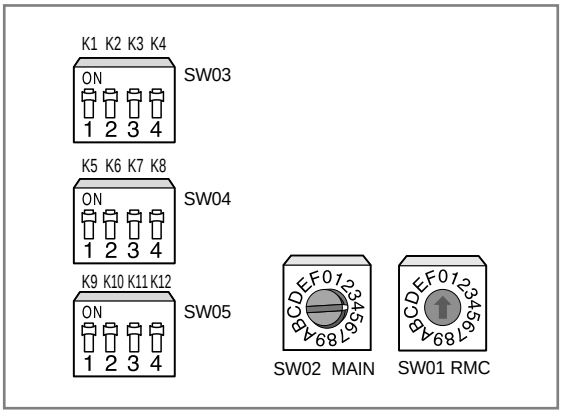
4. It is required to set the RMC address if you install the wired remote controller and/or the centralized controller.

5. If you install optional accessories such as the wired remote controller, centralized controller, etc. see an appropriate installation manual.

6. If an optional accessory is not installed, you do not have to set the RMC address. However, adjust K1 and K2 switches of the SW03 DIP switch to "ON" position in this case.

7. Set the MAIN address by adjusting the rotary switch(SW02) from 0 to F. Each indoor unit connected to the same outdoor unit must have different address.

   i. e. If an indoor unit does not have an optional accessory and its MAIN address is "4".

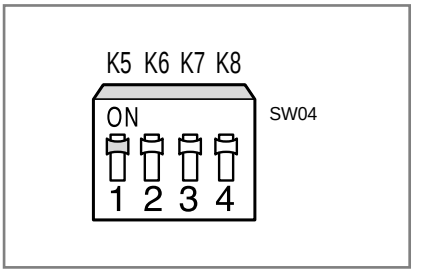


2-2 Additional Functions

■ Compensation for lost temperature in heating operation

• Reduces the difference between an actual room temperature and a sensed temperature by the air conditioner when heating.

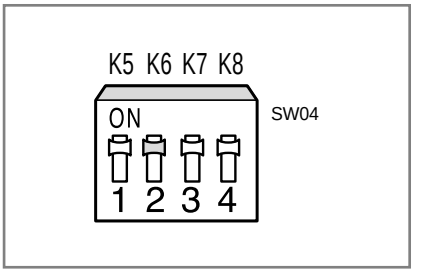
Switch No.	Switch ON	Switch OFF
K5	2°C compensation	5°C compensation



■ Adjusting filter cleaning cycle

• You can adjust the cycle for filter sign indicator.

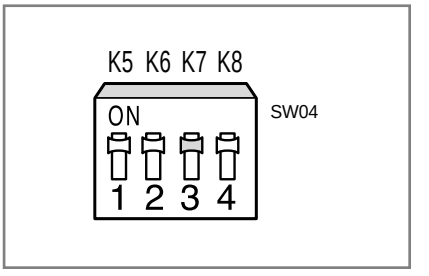
Switch No.	Switch ON	Switch OFF
K6	1000 hours	2000 hours



■ Hot water heater

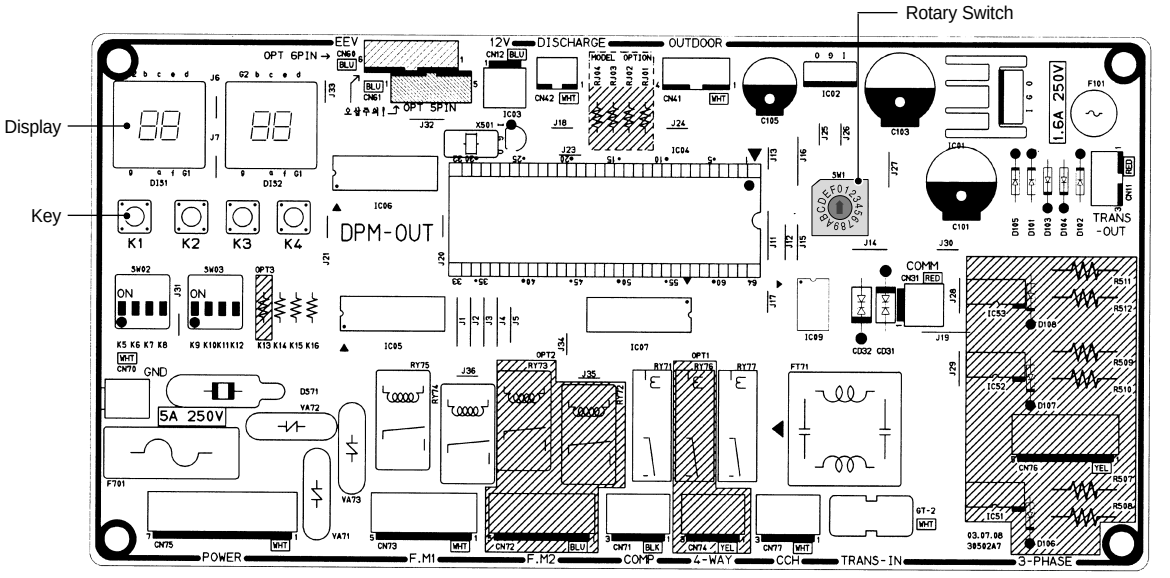
• You must adjust the K7 when you install the hot water heater.

Switch No.	Switch ON	Switch OFF
K7	No use of hot water heater	Use of hot water heater



2-3 Setting Up Option Switches

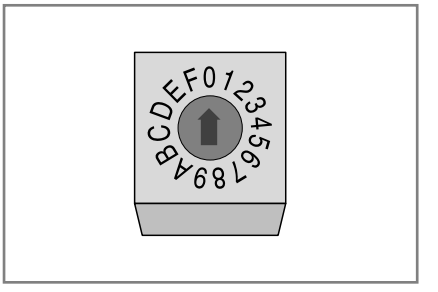
■ Option Switch



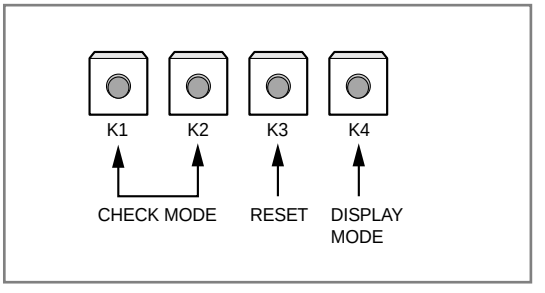
■ Rotary Switch

You should display that how many indoor units are connected to the outdoor unit. Refer to the table below, then turn the arrow to appropriate position.

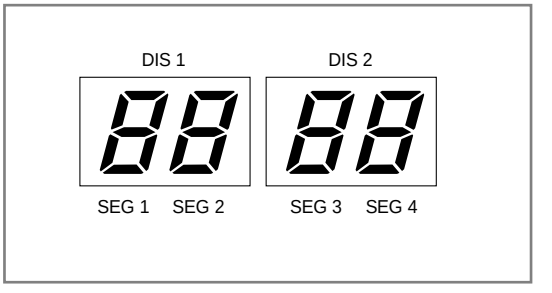
Switch No.	Number of indoor unit(s)	Switch No.	Number of indoor unit(s)
0 or 1	One	9	Nine
2	Two	A	Ten
3	Three	B	Eleven
4	Four	C	Twelve
5	Five	D	Thirteen
6	Six	E	Fourteen
7	Seven	F	Fifteen
8	Eight	-	-



■ KEY



■ Display



■ Summary of KEY functions

Function / Number of press times	K1 (Displayed on SEG 3, 4)	K2 (Displayed on SEG 3, 4)	K3 (Displayed on SEG 3, 4)	K4 (Displayed on SEG 3, 4)
1	Adding refrigerant at heating mode	Adding refrigerant at cooling mode	Reset	Displays data
2	Test operation at heating mode	Test operation at cooling mode	-	-
3	End	Pump Down for recovery of refrigerant	-	-
4	-	End	-	-

✻ Use the K1 only for heat pump models.

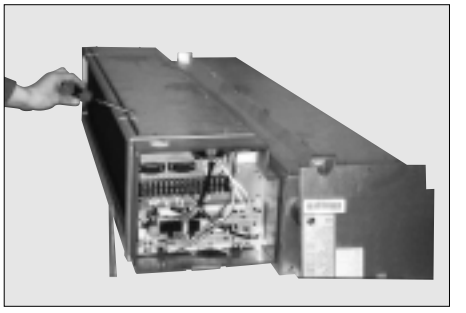
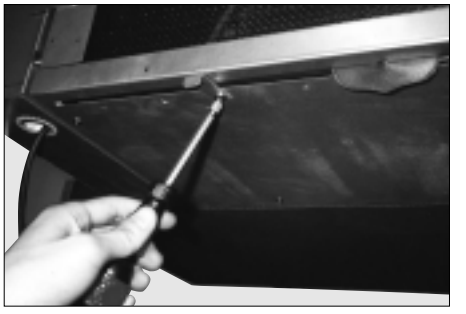
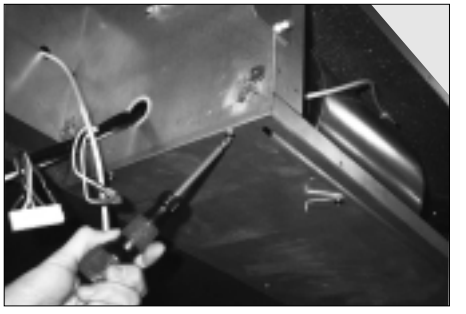
■ Reading data indicated on the display

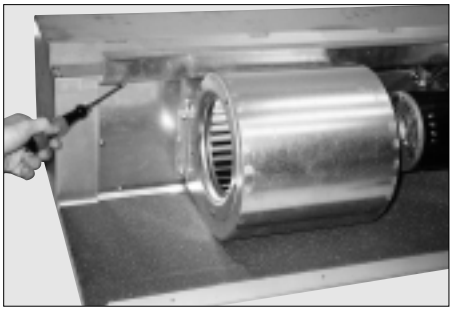
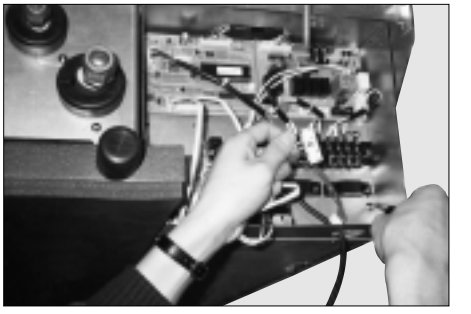
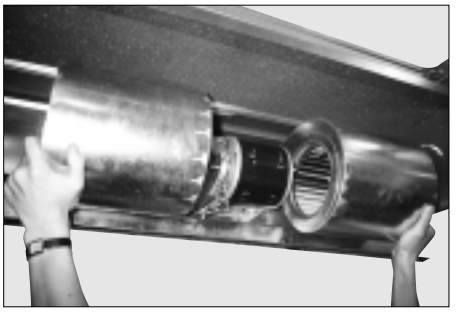
KEY	Number of press	Item	Example	
			Display	Meaning
K1	1	Adding refrigerant for heat pump models		
	2	Test operation for heat pump models		
	3	End		
K2	1	Adding refrigerant for cooling only models		
	2	Test operation for cooling only models		
	3	Pump Down for recovery of refrigerant		
	4	End		
K3		Reset		
K4	1	Discharge temperature of compressor		110 °C
	2	Temperature of outdoor heat exchanger		38 °C
	3	Outdoor temperature		34 °C
	4	Step of electronic expansion valve (0 step : all closed, 480 step : all open)		120STEP (12 x 10)
	5	Temperature of evaporator		-2 °C
				12 °C
	6	Indoor temperature		22 °C
	7	Stopping view mode & display communication data		

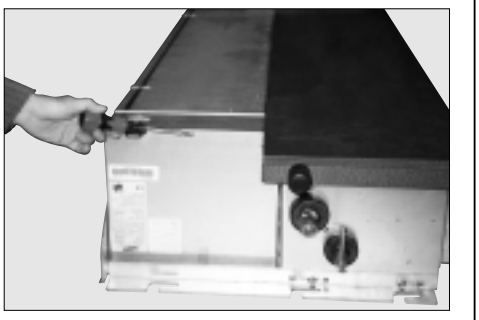
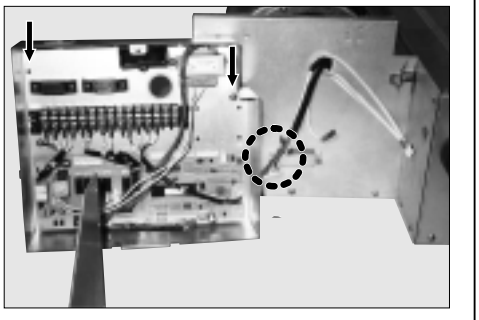
3. Disassembly and Reassembly

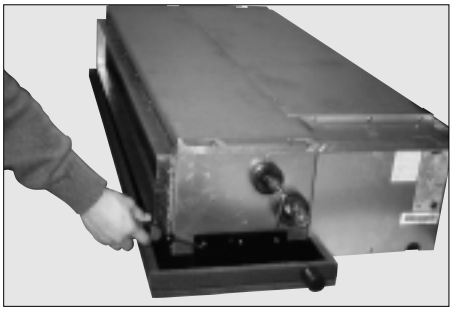
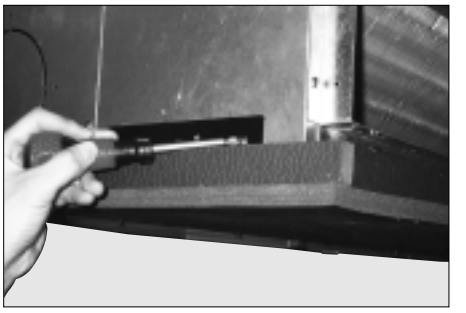
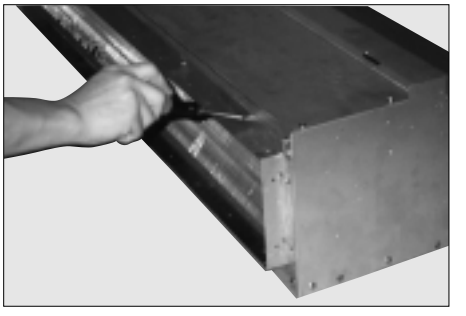
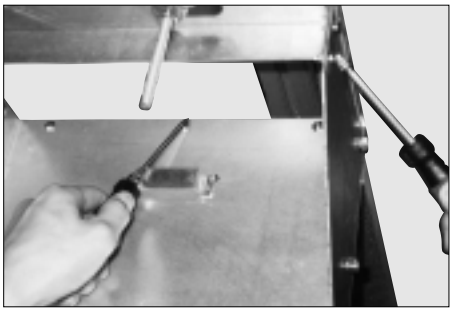
Stop operation of the air conditioner and remove the power cord before repairing the unit.

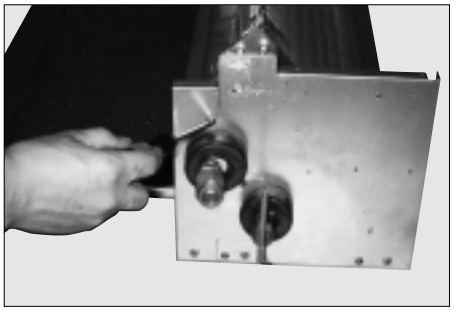
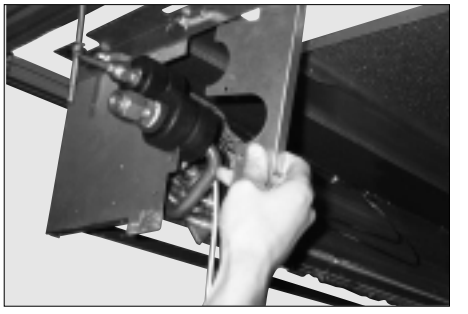
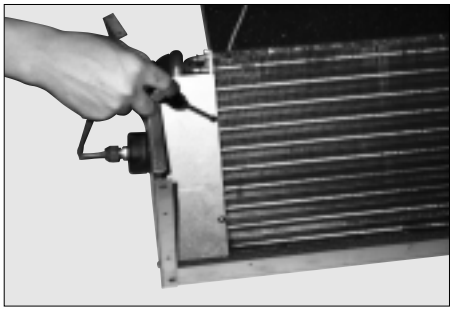
3-1 Indoor Unit

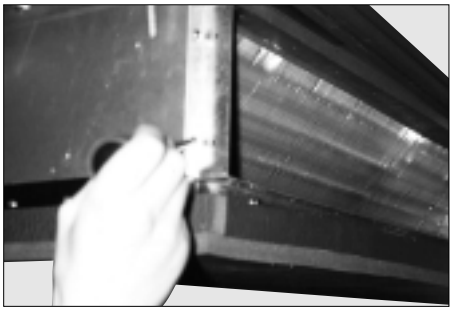
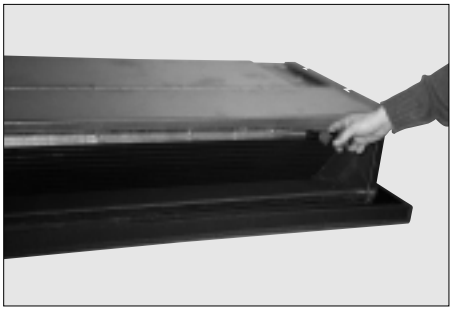
No	Parts	Procedure	Remark
1	Filter-pre	1) Disassemble 2 screws of indication part and then assemble the direction of 2 plate-handle places by use of screw as shown in 2).	
		2) Turn the plate handle by hand when removing the Filter-pre.	
		3) When pulling the Filter-pre handle, the Filter-pre can be assembled. ✳ Be sure to remove the cushion on the ◌ marked part after initial installation. (It cause the damage of noise).	
2	Blower & DUCT	1) After disassembling 9 places indicating screws, separate Ass'y cover bottom.	

No	Parts	Procedure	Remark
		2) Disassemble 6 indicating screws.	
			
		3) Separate the sensor holder from the Ass'y fan case.	
		4) Separate from Ass'y control in the capacitor connection wire between the motor-fan in and housing connector.	
		5) Separate the Ass'y blower and duct from the set.	

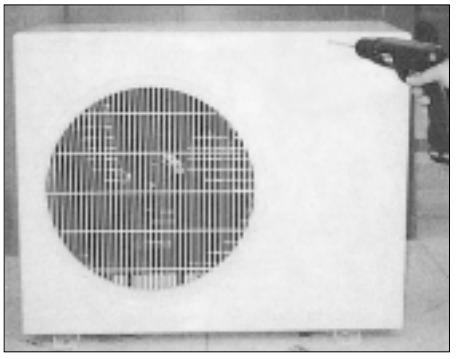
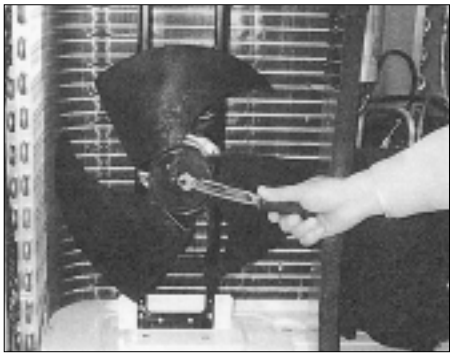
No	Parts	Procedure	Remark
3	Control In	1) After disassembling 1 indicating screw, separate the cover-control.	
		2) Separate the motor-fan in and sensor connector connected to PCB.	
		3) Disassemble 2 indicating screws. (arrow mark)	
		4) Hold the Ass'y control In by hand to lift up a little and then release the status of hanging on the hanging slot.	

No	Parts	Procedure	Remark
4	Drain pan	1) Disassemble 4 indicating screws to separate Ass'y drain pan. (2 screws each at left and right side)	 
5	EVAP	❋ Work is possible when disassembling the ass'y drain pan. 1) Disassemble 8 indicating screws. (4 each at left and right side) 2) Disassemble 6 indicating screws. 3) Disassemble 5 indicating screws. ❋ It is possible at the status of No.3 Ass'y control In disassembly at the time.	 

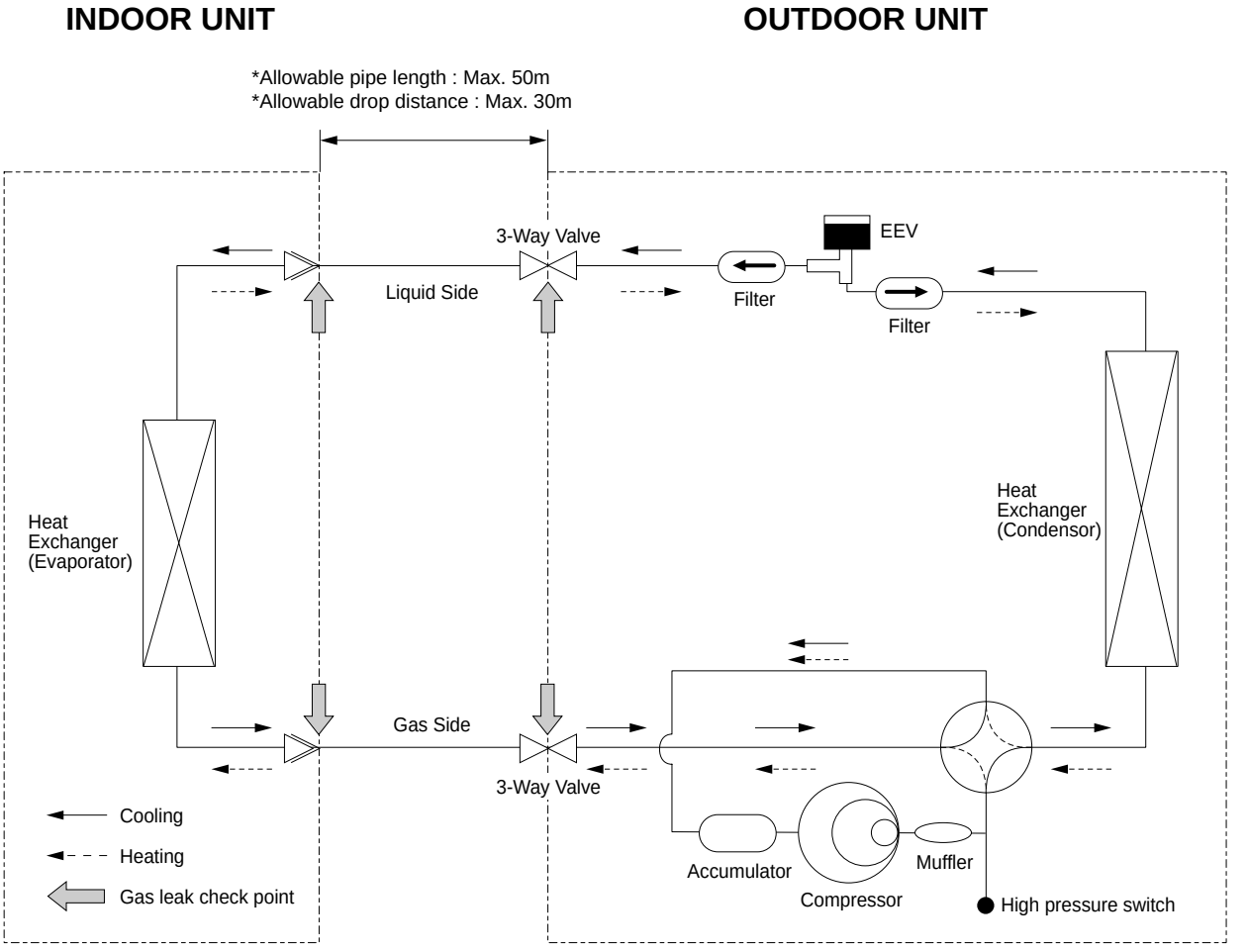
No	Parts	Procedure	Remark
		4) After disassembling 4 indicating screws.	
		5) Pull the cabinet-side RH, BH by hand to disassemble.	
		6) Separate 4 indicating screws. (2 each at left and right side)	
		7) Separate it from the set if the ass'y-evap pull up.	

No	Parts	Procedure	Remark
6	Holder outlet	✻ When connecting canvas to the discharge side. 1) Disassemble 4 indicating screws. (2 each at left and right side)	
		2) Disassemble 12 indicating screws. (6 each at upper and lower side) ✻ After connecting canvas to the disassembled Ass'y holder outlet 2), attach the Ass'y holder outlet to the set in the reverse order.	

3-2 Outdoor Unit

No	Parts	Procedure	Remark
1	Cabinet	1) Turn off the unit and remove the power cable. 2) Detach the top cover. 3) Detach the control box cover. 4) Unplug the ass'y cable. 5) Detach the cabi-side. 6) Detach the cabi-front. ✻ When you assemble the parts, check if the each parts and component electric box are fixed firmly.	
2	Fan Motor & Propeller Fan	1) Detach the nut flange. (Turn to the right to remove as it is a left turned screw) 2) Disassemble the propeller fan.	

4. Refrigerating Cycle Diagram



5. Troubleshooting

■ **Detection of errors**

- If an error occurs during the operation, an LED flickers and the operation is stopped except the LED.
- If you re-operate the air conditioner, it operates normally at first, then detect an error again.

5-1 LED Display on the receiver & display unit

■ **LED Display**

Abnormal conditions	Indicators					Operating
	Concealed Type (Blue)	Concealed Type (Red)				
	Standard Type					
Power reset	◑	×	×	×	×	
Error of temperature sensor in indoor unit (OPEN/SHORT)	×	×	◑	×	×	Displayed on appropriate indoor unit which is operating
Error of heat exchanger sensor in indoor unit(OPEN/SHORT)	◑	×	◑	×	×	Displayed on appropriate indoor unit which is operating
Error of outdoor temperature sensor Error of COND sensor Error of DISCHARGE sensor (OPEN/SHORT)	◑	×	×	◑	×	Displayed on appropriate indoor unit which is operating Displayed on outdoor unit
1. No communication for 2 minutes between indoor unit and outdoor unit (communication error for more than 2 minutes) 2. Indoor unit receiving the communication error from outdoor unit 3. Outdoor unit tracking 3 minute error 4. When sending the communication error from outdoor unit the mismatching of the communication numbers and installed numbers after completion of tracking. (communication error for more than 2 minutes)	×	×	◑	◑	×	1. Error of indoor unit: Displayed on the indoor unit regardless of operation 2. Error of outdoor unit: Displayed on the indoor unit which is operating
1. Communication error between indoors (Communication error for more than 2 minutes) 2. Slave of indoor unit tracking error	◑	×	×	×	◑	Error of indoor unit: Displayed on the indoor unit regardless of operation

- If you turn off the air conditioner when the LED is flickering, the LED is also turned off.
- If you re-operate the air conditioner, it operates normally at first, then detect an error again.

● : On ◑ : Flickering × : Off

■ LED Display(cont.)

Abnormal conditions	Indicators					Operating
	Concealed Type					
	Blue	Red				
	Standard Type					
1. 2nd detection of high temperature COND 2. 2nd detection of high temperature DISCHARGE 3. Error of reverse phase	×	×	◑	◑	◑	Displayed on appropriate indoor unit which is operating Displayed on outdoor unit
Error of float switch	×	×	×	◑	◑	
Error of setting option switches for optional accessories	×	×	◑	×	◑	
EEPROM error	◑	×	◑	◑	×	
EEPROM option error	◑	◑	◑	◑	◑	

- If you turn off the air conditioner when the LED is flickering, the LED is also turned off.
- If you re-operate the air conditioner, it operates normally at first, then detect an error again.

● : On ◑ : Flickering × : Off

5-2 Outdoor Unit

If an error occurs during the operation, it is displayed on the outdoor unit PCB.

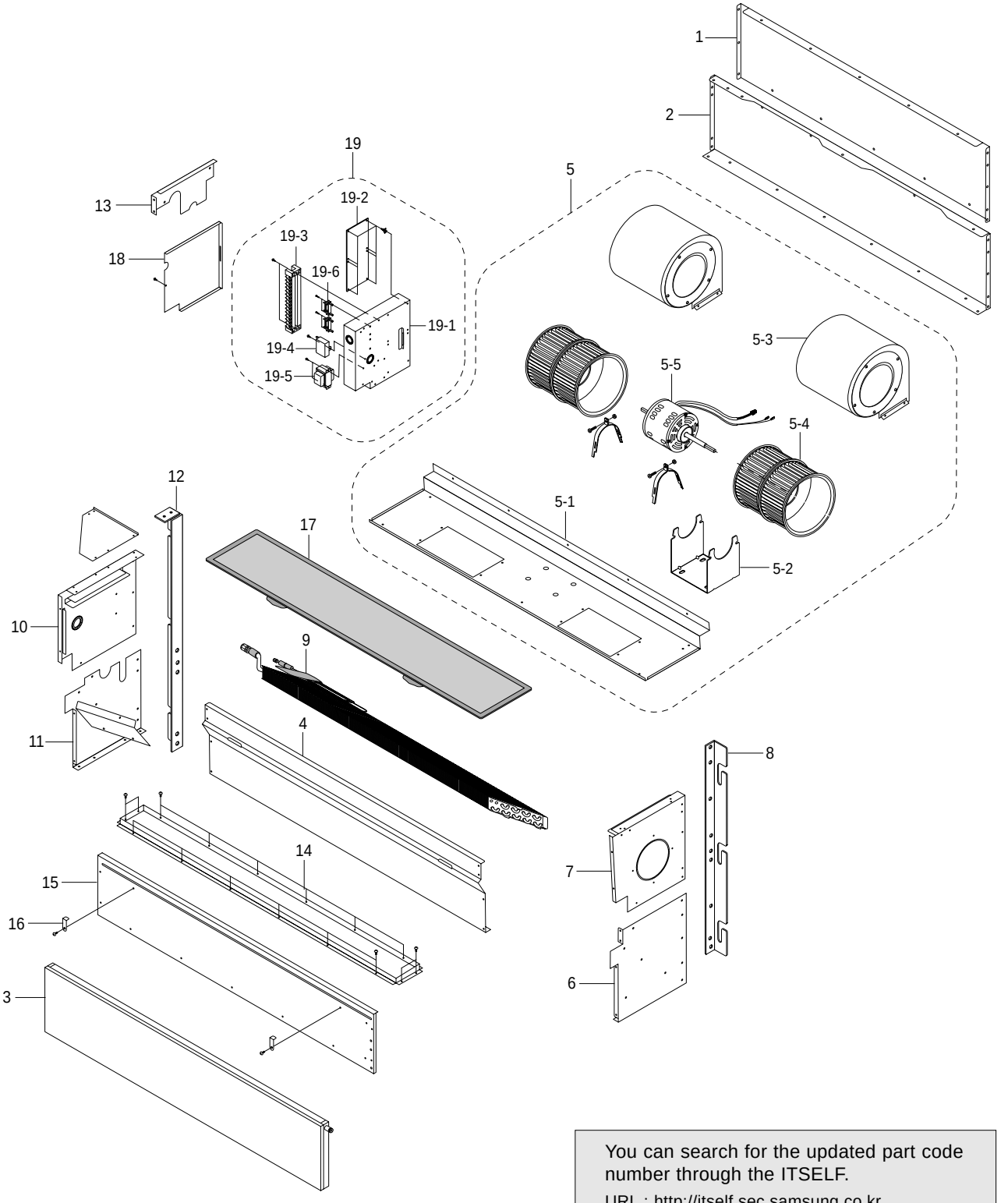
Display	Explanation	Remark
Er↔P0	High temperature of Discharge (Protection control)	Error about protection control of outdoor unit
Er↔P1	High temperature of outdoor heat exchanger (Protection control)	
Er↔P5	COMP DOWN to protect being frozen	
Er↔P6	Error of momentary power failure (disappears when the unit is Off/On)	
Er↔t1	Error of OUT TEMP sensor (OPEN/SHORT)	Errors about outdoor unit sensor (OPEN/SHORT) Detection during the operation of indoor unit (Sensing and sending errors into the communication data)
Er↔t2	Error of temperature sensor in outdoor heat exchanger (OPEN/SHORT)	
Er↔t3	Error of Discharge TEMP sensor (OPEN/SHORT)	
Er↔E1	System Down caused by communication error after completion of tracking	Communication and indoor unit errors
Er↔E2	Mismatching of the indoor unit numbers set with those communicated after completion of tracking	
Er↔E3	Error of float switch in indoor unit	Self-diagnosis of indoor and outdoor unit (x:indoor unit address)
Er↔E5	Error of setting option switches for optional accessories	
Er↔9x	OPEN/SHORT error of room sensor in indoor unit	
Er↔rx	OPEN/SHORT error of eva in sensor in indoor unit	
Er↔Ux	EEPROM option error	Displays of operating status
Er↔ux	Error of fan starting	
Er↔G4	Open error of electronic expansion valve in outdoor unit (Detected once or more times)	
Er↔G5	Close error of electronic expansion valve in outdoor unit (Detected once or more times)	
tU Flicker	Below -5°C when cooling (Outdoor temperature)	
tO Flicker	Over 30°C when heating (Outdoor temperature)	
K1, K2, K3, K4, K5 Flicker		

The order of priority : E1 → E2 → E4 → E5 → P0 → P1 → P5 → P6 → t1 → t2 → t3 → tu → to → G4 → G5 → E3 → qx → rx → vx → K1, K2, K3, K4, K5

- In case that the same error displays from multi-indoor units, the one having the faster address has the priority.

6. Exploded Views and Parts List

6-1 Indoor Unit



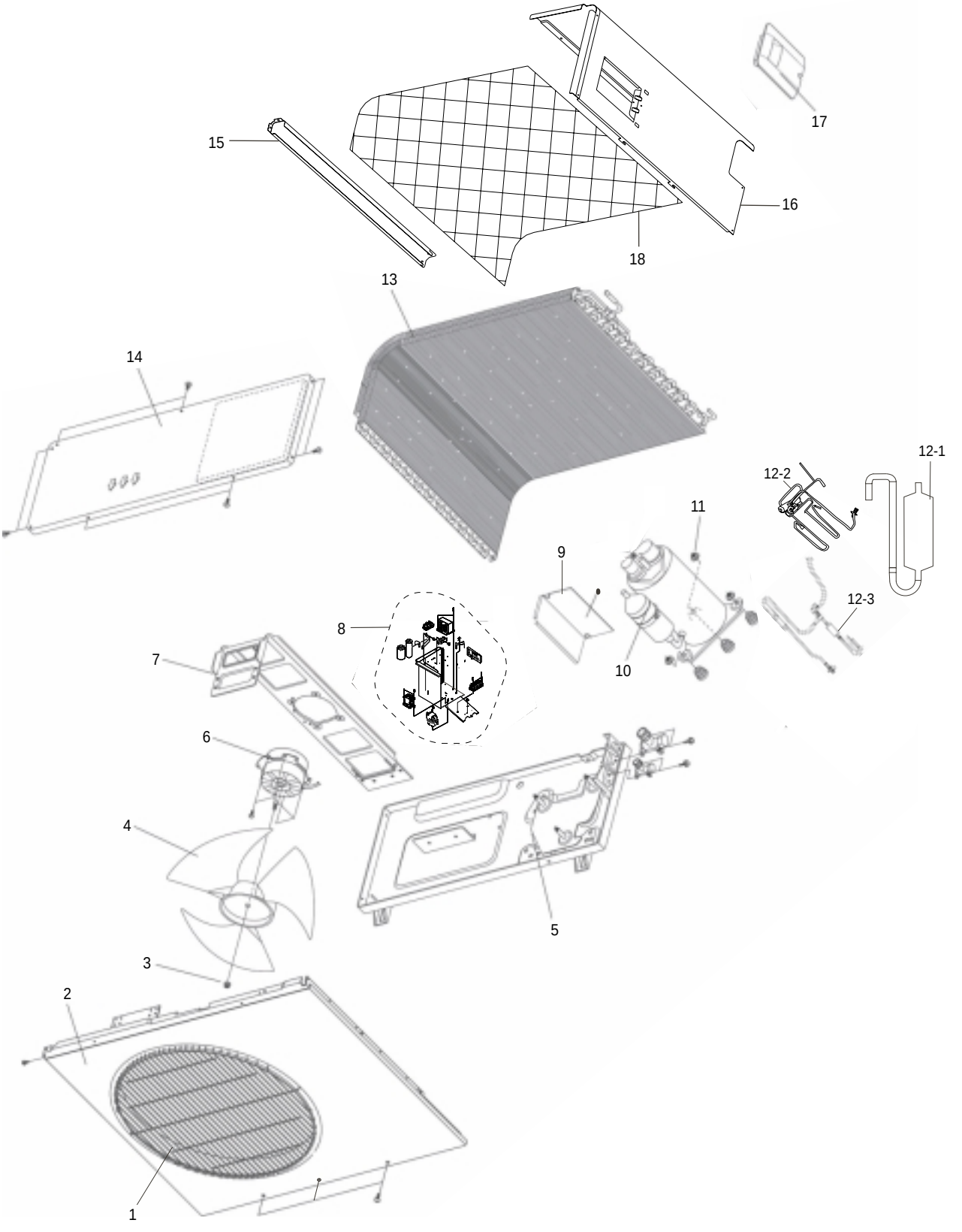
You can search for the updated part code number through the ITSELF.

URL : http://itself.sec.samsung.co.kr

■ Parts List

No.	Code No.	Description	Specification	Q'TY
1	DB63-00076A	COVER-TOP	SGCC-M T0.8	1
2	DB63-00074A	COVER-CASE DUCT	SGCC-M T0.8	1
3	DB94-00022A	ASS'Y-DRAIN PAN	ASS'Y, BLK	1
4	DB61-00099A	CASE-BOTTOM	SGCC-M, T0.8	1
5	DB94-00023C	ASS'Y-BLOWER, DUCT	ADH2400B	1
5-1	DB64-00071A	PANEL-DUCT MOTOR	SGCC-M, T1.2	1
5-2	DB61-00155A	BRACKET-MOUNT MOTOR	SGCC-M, T2.0	1
5-3	DB90-00121A	ASS'Y-CASE, FAN	ADH2400E	2
5-4	DB67-00046A	BLOWER	ASS'Y, SGCC-M, ø175	2
5-5	DB31-00025A	MOTOR-FAN, IN	OSME-1004 SAC	1
6	DB90-00117A	ASS'Y-CABI, LF	ASS'Y	1
7	DB90-00119C	ASS'Y-CABI, INLET, LF	ASS'Y	1
8	DB70-00026B	PLATE-HANGER, LF	SGCC-M, T2.0	1
9	DB96-03042A	ASS'Y-EVAP	ASS'Y	1
10	DB90-00120C	ASS'Y-CABI, INLET, RH	ASS'Y	1
11	DB90-00118A	ASS'Y-CABI, SIDE, RH	ASS'Y	1
12	DB70-00027B	PLATE-HANGER, RH	SGCC-M, T2.0	1
13	DB64-00121A	CABINET-SIDE, RH, B	SGCC-M, T0.8	1
14	DB90-00393A	ASS'Y-HOLDER OUTLET	ASS'Y	1
15	DB90-00114A	ASS'Y-COVER, BOTTOM	ASS'Y	1
16	DB71-00019A	PLATE-HANDLE	SGCC-M, T1.2	2
17	DB74-00006A	FILTER-PRE	PE, 36x40	1
18	DB63-00080A	COVER-CONTROL	SGCC-M, T0.8	1
19	DB93-01616E	ASS'Y-CONTROL, IN	ASS'Y	1
19-1	DB90-00116A	ASS'Y-CASE, CONTROL	ASS'Y	1
19-2	DB93-00849N	ASS'Y-PCB, PARTS	DPM24K DUCT IN	1
19-3	DB65-00029C	TERMINAL BOARD, 6P	6P	1
19-4	2301-001368	CAPACITOR	450V/5.0µF	1
19-5	DB26-10065B	TRANS-POWER	DC17 AC230V 50Hz	1
19-6	DB61-40291B	HOLDER-WIRE	PP, T2.0, BLK	2

6-2 Outdoor Unit



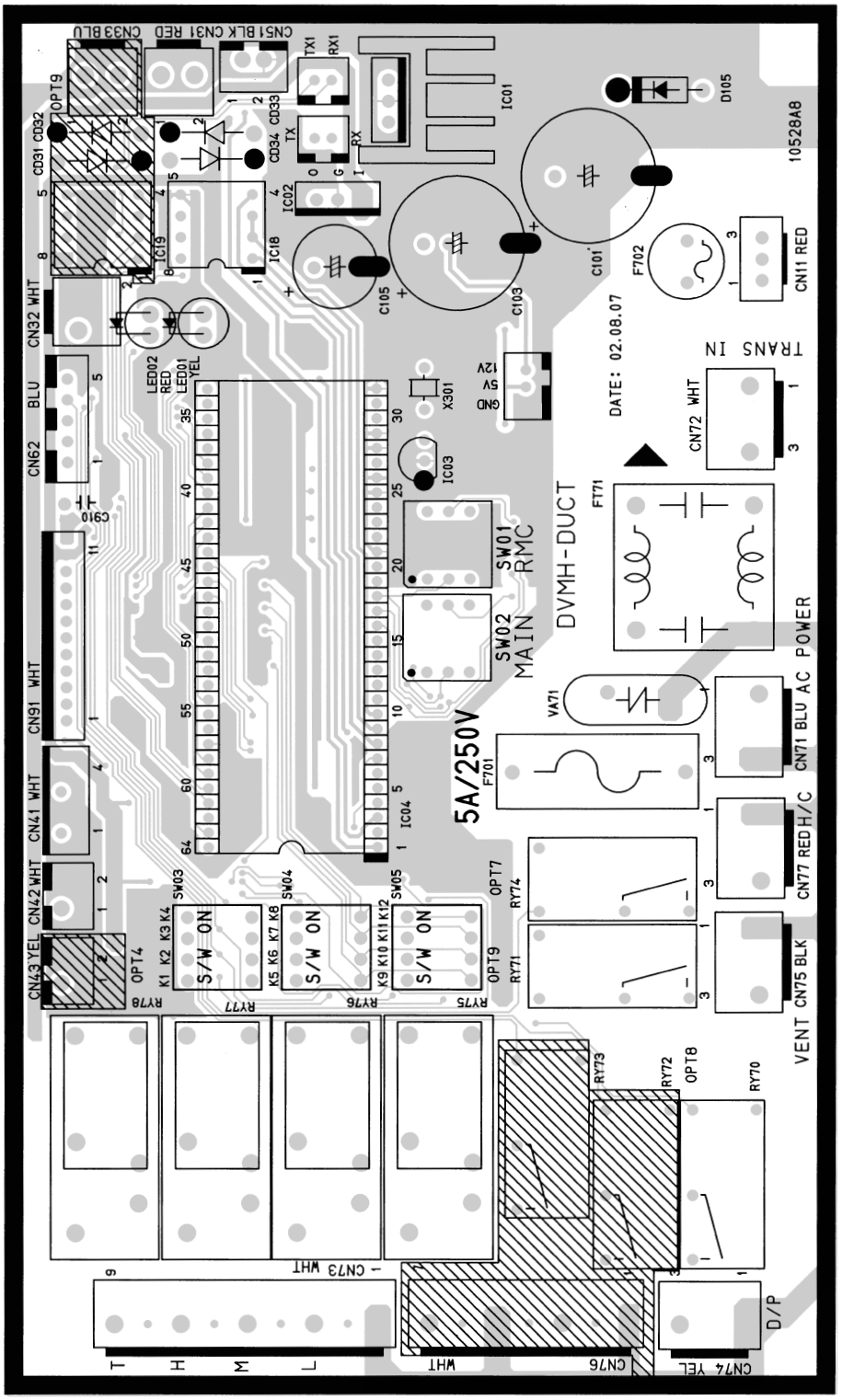
■ Parts List

No.	Code No.	Description	Specification	Q'TY
1	DB63-00260A	GUARD FAN	APH1816,-,-,-,-,-,-,CHINA	1
2	DB90-01145A	ASS'Y-CABI FRONT	ASS'Y	1
3	DB60-30028A	NUT-WASHER	HEX 2C M8 ZPC	1
4	DB67-50074A	FAN-PROPELLER	AS-1569,-,-	1
5	DB90-00970E	ASS'Y BASE OUT-PART	(PAINT+SEAL);KFRD-67W	1
6	DB31-00027E	MOTOR-FAN OUT	2 STEP,WEILING	1
7	DB95-00205A	ASS'Y MOTOR-B/K	APH1816,CHINA	1
8	DB93-02484A	ASS'Y CONTROL OUT	HP, UH070EZM	1
9	DB94-50039C	ASS'Y PARTITION	ASM-3500A,-	1
10	DB95-00201A	ASS'Y COMP	APH2416,SHV33C6-G,HITACHI	1
11	DB60-30028A	NUT-WASHER	HEX 2C M8 ZPC	3
12-1	DB96-02901A	ASS'Y ACCUMULATOR	ASS'Y	1
12-2	DB96-02902A	ASS'Y 4-WAY VALVE	ASS'Y	1
12-3	DB96-02903A	ASS'Y EXPANSION VALVE	ASS'Y	1
13	DB98-02909A	ASS'Y-COND PART	APH2488,CHINA	1
14	DB90-10616G	ASS'Y CABI-UP	APE2468,CHINA(ALL)	1
15	DB63-00692A	GUARD COND	1-PJT,SECC-P,T=1.6,	1
16	DB64-00798B	CABINET-SIDE RH	W1-PJT,SECC-	1
17	DB63-10490B	COVER-CONTROL	ABS(V0),-,SC-90073R,-	1
18	DB61-00821B	GUIDE-SCREEN	AP-L1540,P.E.H 100%,T2.5,10	1

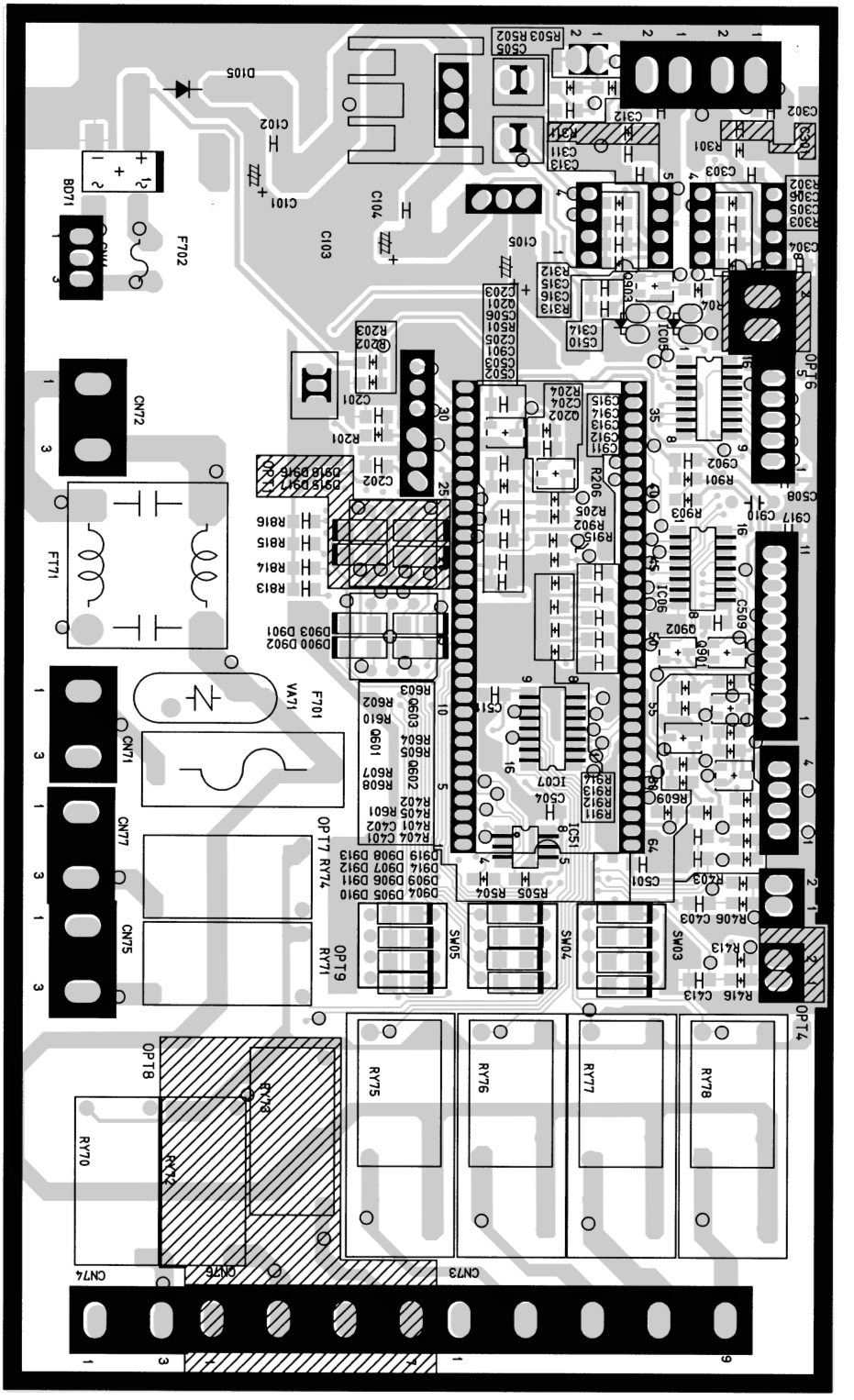
7. PCB Diagram

7-1 Indoor Unit(Code No : DB93-00849N)

■ TOP



■ BOTTOM


CN72
CN71
CN77
CN75
CN73
CN74
CN76
FT71
F701
F702
VA71
BD71
D105
OPT4
OPT5
OPT6
OPT7
OPT8
OPT9
RY70
RY71
RY72
RY73
RY74
RY75
RY76
RY77
RY78
SW03
SW04
SW05

■ Parts List

Location No.	Description	Specification
BD71	DIODE BRIDGE	DF06S
C101	C-ELEC	2200uF 35V
C102	C-CHIP	CS2012Y 5V 104Z5
C103	C-ELEC	2200uF 25V
C104	C-CHIP	CS2012Y 5V 104Z5
C105	C-ELEC	SD 470uF,25V
C201	C-CHIP	CS2012Y 5V 104Z5
C202	C-CHIP	CS2012Y 5V 104Z5
C203	C-CHIP	CS2012Y 5V 104Z5
C204	C-CHIP	CS2012 5V 103Z5
C205	C-CHIP	CS2012 5V 103Z5
C301	C-CHIP	CS2012 5V 103Z5
C302	C-CHIP	CS2012Y 5V 104Z5
C303	C-CHIP	CS2012Y 5V 104Z5
C304	C-CHIP	CS2012Y 5V 104Z5
C305	C-CHIP	CS2012Y 5V 104Z5
C306	C-CHIP	CS2012Y 5V 104Z5
C311	C-CHIP	CS2012 5V 103Z5
C312	C-CHIP	CS2012Y 5V 104Z5
C313	C-CHIP	CS2012Y 5V 104Z5
C314	C-CHIP	CS2012Y 5V 104Z5
C315	C-CHIP	CS2012Y 5V 104Z5
C316	C-CHIP	CS2012Y 5V 104Z5
C401	C-CHIP	CS2012Y 5V 104Z5
C402	C-CHIP	CS2012Y 5V 104Z5
C403	C-CHIP	CS2012Y 5V 104Z5
C413	C-CHIP	CS2012Y 5V 104Z5
C501	C-CHIP	CS2012Y 5V 104Z5
C502	C-CHIP	CS2012Y 5V 104Z5
C503	C-CHIP	CS2012Y 5V 104Z5
C504	C-CHIP	CS2012Y 5V 104Z5
C505	C-CHIP	CS2012Y 5V 104Z5
C506	C-CHIP	CS2012Y 5V 104Z5
C508	C-CHIP	CS2012Y 5V 104Z5
C509	C-CHIP	CS2012Y 5V 104Z5
C510	C-CHIP	CS2012Y 5V 104Z5
C511	C-CHIP	CS2012Y 5V 104Z5
C901	C-CHIP	CS2012X 7R 102K5
C902	C-CHIP	CS2012Y 5V 104Z5
C910	C-FILM	2A 472J
C911	C-CHIP	CS2012 5V 103Z5
C912	C-CHIP	CS2012 5V 103Z5
C913	C-CHIP	CS2012 5V 103Z5
C914	C-CHIP	CS2012 5V 103Z5
C915	C-CHIP	CS2012 5V 103Z5
C917	C-CHIP	CS2012Y 5V 104Z5

■ **Parts List(cont.)**

Location No.	Description	Specification
CD31	DIODE-TVS	SAC5.0
CD32	DIODE-TVS	SAC5.0
CD33	DIODE-TVS	SAC5.0
CD34	DIODE-TVS	SAC5.0
CN11	CONNECTOR	SMW250-03 RED
CN31	CONNECTOR	YW396-02V RED
CN32	CONNECTOR	YW396-02V WHT
CN33	CONNECTOR	YW396-02V BLU
CN41	CONNECTOR	SMW250-04 WHT
CN51	CONNECTOR	SMW250-02 BLK
CN71	CONNECTOR	YW396-03AV BLU
CN72	CONNECTOR	YW396-03AV WHT
CN73	CONNECTOR	YW396-09AV WHT
CN74	CONNECTOR	YW396-03AV YEL
CN75	CONNECTOR	YW396-03 BLK
CN77	CONNECTOR	YW396-03 RED
CN91	CONNECTOR	SMW200-11 WHT
D105	DIODE-RECT	IN4007
D900	DIODE	4148M
D901	DIODE	4148M
D902	DIODE	4148M
D903	DIODE	4148M
D904	DIODE	4148M
D905	DIODE	4148M
D906	DIODE	4148M
D907	DIODE	4148M
D908	DIODE	4148M
D909	DIODE	4148M
D910	DIODE	4148M
D911	DIODE	4148M
D912	DIODE	4148M
D913	DIODE	4148M
D914	DIODE	4148M
D915	DIODE	4148M
D916	DIODE	4148M
D917	DIODE	4148M
D918	DIODE	4148M
D919	DIODE	4148M
F701	FUSE	250V, 5A
F701	HOLDER FUSE	FB58-20
F702	FUSE	250V, 1A
FT71	FILTER NOISE	HP1-P10
IC01	HEAT SINK	A6063,L25.5 W15,WHT
IC01	IC VOLT REGULATOR	KA7812A
IC01	SCREW-TAPPING	PH,M3,L8,FE FZY
IC02	IC VOLT REGULATOR	KA7805A

■ **Parts List(cont.)**

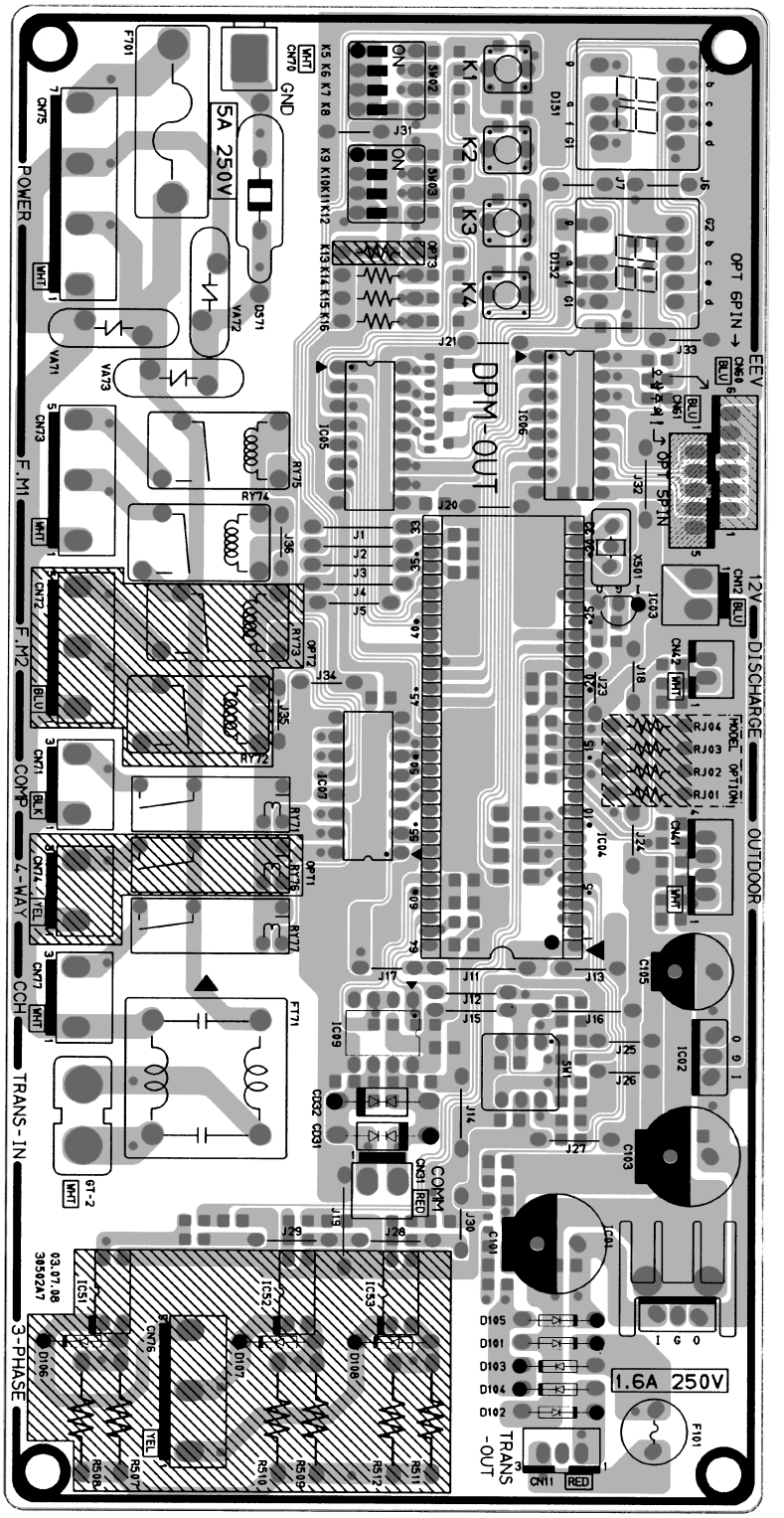
Location No.	Description	Specification
IC03	IC-RESET	KA7533Z
IC04	IC - MCU	MB89635
IC05	IC DRIVE	ULN2003AFW
IC06	IC DRIVE	ULN2003AFW
IC07	IC DRIVE	ULN2003AFW
IC18	IC-BUS TRANSCEIVER	MAX485
IC19	IC-BUS TRANSCEIVER	MAX485
IC51	EEPROM	93LC56B-1/SN
LED01	LED LAMP	SY5511 YEL
LED02	LED LAMP	SR5511 RED
Q201	TR SMALL SIGNAL	2SC2412K
Q202	TR SMALL SIGNAL	2SC2412K
Q601	TR SMALL SIGNAL	2SC2412K
Q602	TR SMALL SIGNAL	2SC2412K
Q603	TR SMALL SIGNAL	MMST2907A
Q901	TR DIGITAL	DTA114EKA
Q902	TR DIGITAL	DTA114EKA
Q903	TR DIGITAL	DTA114EKA
R04	R-CHIP	R2012 1kΩ±5
R201	R-CHIP	R2012 1kΩ±5
R202	R-CHIP	R2012 3.3kΩ±5
R203	R-CHIP	R2012 10kΩ±5
R204	R-CHIP	R2012 1kΩ±5
R205	R-CHIP	R2012 1kΩ±5
R206	R-CHIP	R2012 1kΩ±5
R302	R-CHIP	R2012 10kΩ±5
R303	R-CHIP	R2012 10kΩ±5
R312	R-CHIP	R2012 10kΩ±5
R313	R-CHIP	R2012 10kΩ±5
R401	R-CHIP	R2012 6.8kΩ±1
R402	R-CHIP	R2012 6.8kΩ±1
R403	R-CHIP	R2012 6.8kΩ±1
R404	R-CHIP	R2012 330Ω±5
R405	R-CHIP	R2012 330Ω±5
R406	R-CHIP	R2012 330Ω±5
R413	R-CHIP	R2012 24kΩ±1
R416	R-CHIP	R2012 330Ω±5
R501	R-CHIP	R2012 10kΩ±5
R502	R-CHIP	R2012 330Ω±5
R503	R-CHIP	R2012 10kΩ±5
R504	R-CHIP	R2012 47kΩ±5
R505	R-CHIP	R2012 47kΩ±5
R601	R-CHIP	R2012 1kΩ±5
R602	R-CHIP	R2012 10kΩ±5
R603	R-CHIP	R2012 1kΩ±5
R604	R-CHIP	R2012 470Ω±5

■ **Parts List(cont.)**

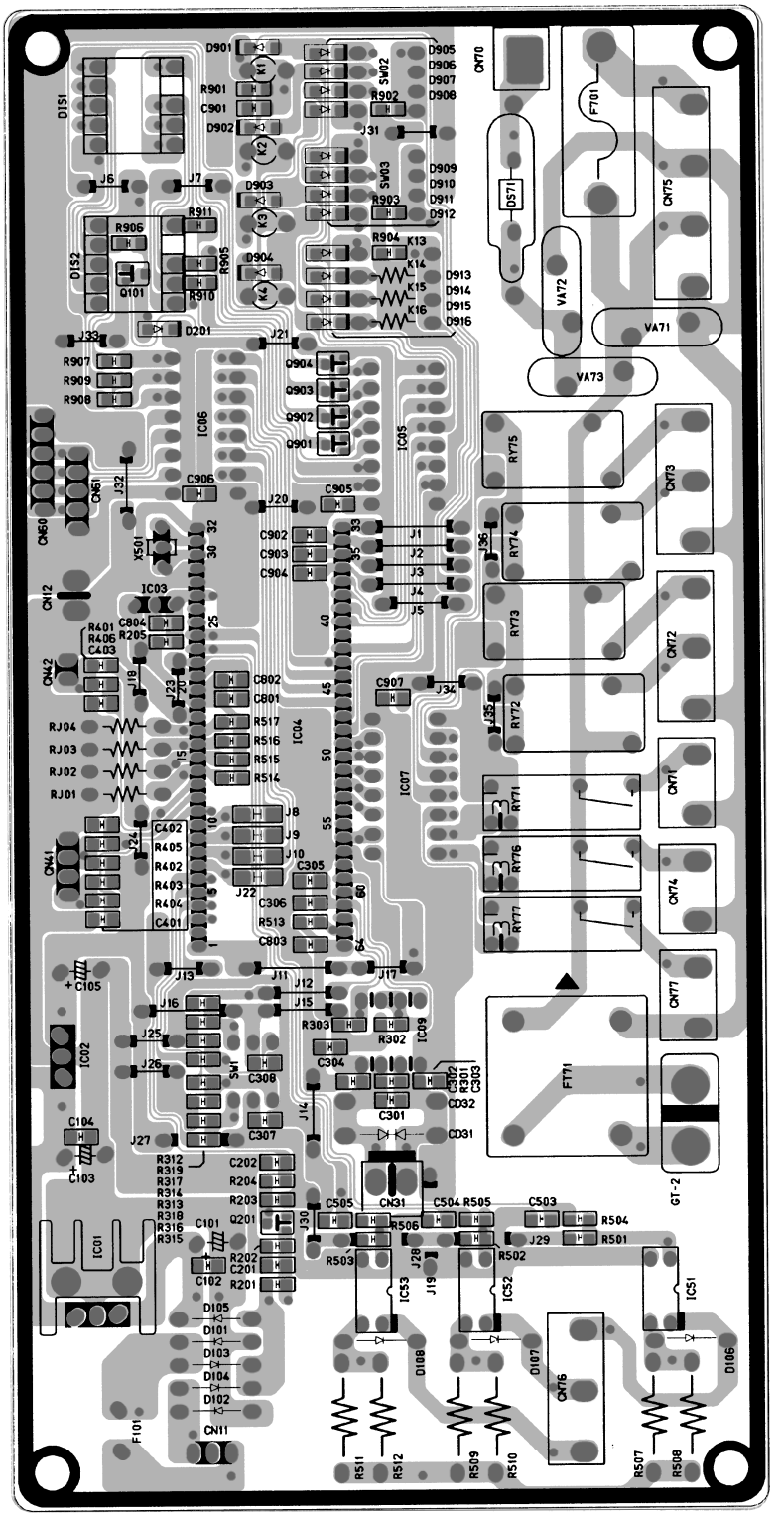
Location No.	Description	Specification
R605	R-CHIP	R2012 470Ω±5
R607	R-CHIP	R2012 1kΩ±5
R608	R-CHIP	R2012 10kΩ±5
R609	R-CHIP	R2012 10kΩ±5
R610	R-CHIP	R2012 3.3kΩ±5
R813	R-CHIP	R2012 1kΩ±5
R814	R-CHIP	R2012 1kΩ±5
R815	R-CHIP	R2012 1kΩ±5
R816	R-CHIP	R2012 1kΩ±5
R901	R-CHIP	R2012 330Ω±5
R902	R-CHIP	R2012 1kΩ±5
R903	R-CHIP	R2012 10kΩ±5
R911	R-CHIP	R2012 10kΩ±5
R912	R-CHIP	R2012 10kΩ±5
R913	R-CHIP	R2012 10kΩ±5
R914	R-CHIP	R2012 10kΩ±5
R915	R-CHIP	R2012 10kΩ±5
RY70	RELAY	JQ1a-12V
RY71	RELAY	JQ1a-12V
RY74	RELAY	JQ1a-12V
RY75	RELAY	CS11-12SH
RY76	RELAY	CS11-12SH
RY77	RELAY	CS11-12SH
RY78	RELAY	CS11-12SH
SW01	DIGITAL-SWITCH	PT65 103
SW02	DIGITAL-SWITCH	PT65 503
SW03	DIP-SWITCH	BSD-104
SW04	DIP-SWITCH	BSD-104
SW05	DIP-SWITCH	BSD-104
VA71	VARISTOR	INR14D561K-BS
X301	RESONATOR	10MHz

7-2 Outdoor Unit(Code No : DB93-01855B)

■ **TOP**



■ BOTTOM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K1
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C901
D902
K2
SW02
D905
D906
D907
D908
R902
CN70
DS71
F701
CN75
J31
SW03
D909
D910
D911
D912
R903
R904
K13
K14
K15
K16
D913
D914
D915
D916
VA72
VA71
VA73
R906
R911
R905
D903
K3
D904
K4
Q101
R910
D201
J33
J21
R907
R909
R908
Q904
Q903
Q902
Q901
IC06
IC05
RY75
CN73
CN61
J32
C906
J20
C905
CN60
X501
C902
C903
C904
J1
J2
J3
J4
J5
J36
RY74
CN12
IC03
C804
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J22
C306
R513
C803
RY76
RY77
CN74
CN77
J13
J11
J12
J15
J17
+ C105
J16
J25
J26
R303
R302
IC09
IC02
SW1
C308
C304
C302
R301
C303
CD32
C301
CD31
FT71
C104
J27
C307
J14
+ C103
R312
R319
R317
R314
R313
R318
R316
R315
C202
R204
R203
Q201
C101
R202
C201
C102
R201
J30
C505
CN31
C504
R505
R506
C503
R504
R501
J29
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R503
J28
J19
IC53
IC52
IC51
GT-2
IC01
D105
D101
D103
D104
D102
F101
CN11
D108
D107
CN76
D106
R511
R512
R509
R510
R507
R508

■ Parts List

Location No.	Description	Specification
C101	C-AL	1000uF 35V
C102	C-CER,CHIP	100nF 50V,2012
C103	C-AL	1000uF 35V
C104	C-CER,CHIP	100nF 50V,2012
C105	C-AL	470uF 25V
C201	C-CER,CHIP	100nF 50V,2012
C202	C-CER,CHIP	10nF 50V,2012
C301	C-CER,CHIP	10nF 50V,2012
C302	C-CER,CHIP	100nF 50V,2012
C303	C-CER,CHIP	100nF 50V,2012
C304	C-CER,CHIP	100nF 50V,2012
C305	C-CER,CHIP	100nF 50V,2012
C306	C-CER,CHIP	100nF 50V,2012
C307	C-CER,CHIP	100nF 50V,2012
C308	C-CER,CHIP	100nF 50V,2012
C401	C-CER,CHIP	100nF 50V,2012
C402	C-CER,CHIP	100nF 50V,2012
C403	C-CER,CHIP	100nF 50V,2012
C503	C-CER,CHIP	100nF 50V,2012
C504	C-CER,CHIP	100nF 50V,2012
C505	C-CER,CHIP	100nF 50V,2012
C801	C-CER,CHIP	100nF 50V,2012
C802	C-CER,CHIP	100nF 50V,2012
C803	C-CER,CHIP	100nF 50V,2012
C804	C-CER,CHIP	100nF 50V,2012
C901	C-CER,CHIP	10nF 50V,2012
C902	C-CER,CHIP	10nF 50V,2012
C903	C-CER,CHIP	10nF 50V,2012
C904	C-CER,CHIP	10nF 50V,2012
C905	C-CER,CHIP	100nF 50V,2012
C906	C-CER,CHIP	100nF 50V,2012
C907	C-CER,CHIP	100nF 50V,2012
CD31	DIODE-TVS	SAC5.0 7.6V/500W
CD32	DIODE-TVS	SAC5.0 7.6V/500W
CN11	CONNECTOR-HEADER	SMW250-03 RED
CN12	CONNECTOR-HEADER	YW396-02V BLU
CN31	CONNECTOR-HEADER	YW396-02V RED
CN41	CONNECTOR-HEADER	SMW250-04 WHT
CN42	CONNECTOR-HEADER	SMW250-02 WHT
CN60	CONNECTOR-HEADER	B6B-XH-A BLU
CN70	CONNECTOR-HEADER	YDW236-01 WHT
CN71	CONNECTOR-HEADER	YW396-03AV BLK
CN73	CONNECTOR-HEADER	YW396-05AV WHT
CN74	CONNECTOR-HEADER	YW396-03AV YEL
CN75	CONNECTOR-HEADER	YW396-07AV WHT
CN77	CONNECTOR-HEADER	YW396-03AV WHT

■ **Parts List(cont.)**

Location No.	Description	Specification
D101	DIODE-RECTIFIER	1N4007 1000V/1A
D102	DIODE-RECTIFIER	1N4007 1000V/1A
D103	DIODE-RECTIFIER	1N4007 1000V/1A
D104	DIODE-RECTIFIER	1N4007 1000V/1A
D105	DIODE-RECTIFIER	1N4007 1000V/1A
D201	DIODE-SWITCHING	RLS4148 100V/200mA
D901	DIODE-SWITCHING	RLS4148 100V/200mA
D902	DIODE-SWITCHING	RLS4148 100V/200mA
D903	DIODE-SWITCHING	RLS4148 100V/200mA
D904	DIODE-SWITCHING	RLS4148 100V/200mA
D905	DIODE-SWITCHING	RLS4148 100V/200mA
D906	DIODE-SWITCHING	RLS4148 100V/200mA
D907	DIODE-SWITCHING	RLS4148 100V/200mA
D908	DIODE-SWITCHING	RLS4148 100V/200mA
D909	DIODE-SWITCHING	RLS4148 100V/200mA
D910	DIODE-SWITCHING	RLS4148 100V/200mA
D911	DIODE-SWITCHING	RLS4148 100V/200mA
D912	DIODE-SWITCHING	RLS4148 100V/200mA
D913	DIODE-SWITCHING	RLS4148 100V/200mA
D914	DIODE-SWITCHING	RLS4148 100V/200mA
D915	DIODE-SWITCHING	RLS4148 100V/200mA
D916	DIODE-SWITCHING	RLS4148 100V/200mA
DIS1	LED DISPLAY-7SEG	ELD-306GWA
DIS2	LED DISPLAY-7SEG	ELD-306GWA
DS71	POSISTOR	DSA-332MA
F101	FUSE	SR-5-016-H 250V,1.6A
F701	FUSE-BLOCK	FB-58
F701_1	FUSE-CARTRIDGE	51NM-050-H 250V,5A
FT71	FILTER-EMI AC LINE	HP1-P10 250V,1A
GT-2	CONNECTOR-TERMINAL	GT-2 WHT
IC01	IC-POSI.FIXED REG.	KA7812A TO-220
IC02	IC-POSI.FIXED REG.	KA7805 TO-220
IC03	IC-VOLTAGE COMP.	KA7533 TO-92
IC04	IC MICOM	MB89538AP-101 STM-0305OC
IC05	IC-DARLINGTON DRIVER	KID65003AP 16P/300MIL
IC06	IC-DARLINGTON DRIVER	KID65003AP 16P/300MIL
IC07	IC-DARLINGTON DRIVER	KID65003AP 16P/300MIL
IC09	IC-BUS TRANSCEIVER	SN75176 8P/300MIL
K1	SWITCH-PUSH	SW-PUSH 125V/1A
K2	SWITCH-PUSH	SW-PUSH 125V/1A
K3	SWITCH-PUSH	SW-PUSH 125V/1A
K4	SWITCH-PUSH	SW-PUSH 125V/1A
Q101	TR-DIGITAL	KSR1102 200MW
Q201	TR-SMALL SIGNAL	2SC2412K 200MW
Q901	TR-DIGITAL	DTA114EKA 200MW
Q902	TR-DIGITAL	DTA114EKA 200MW

■ **Parts List(cont.)**

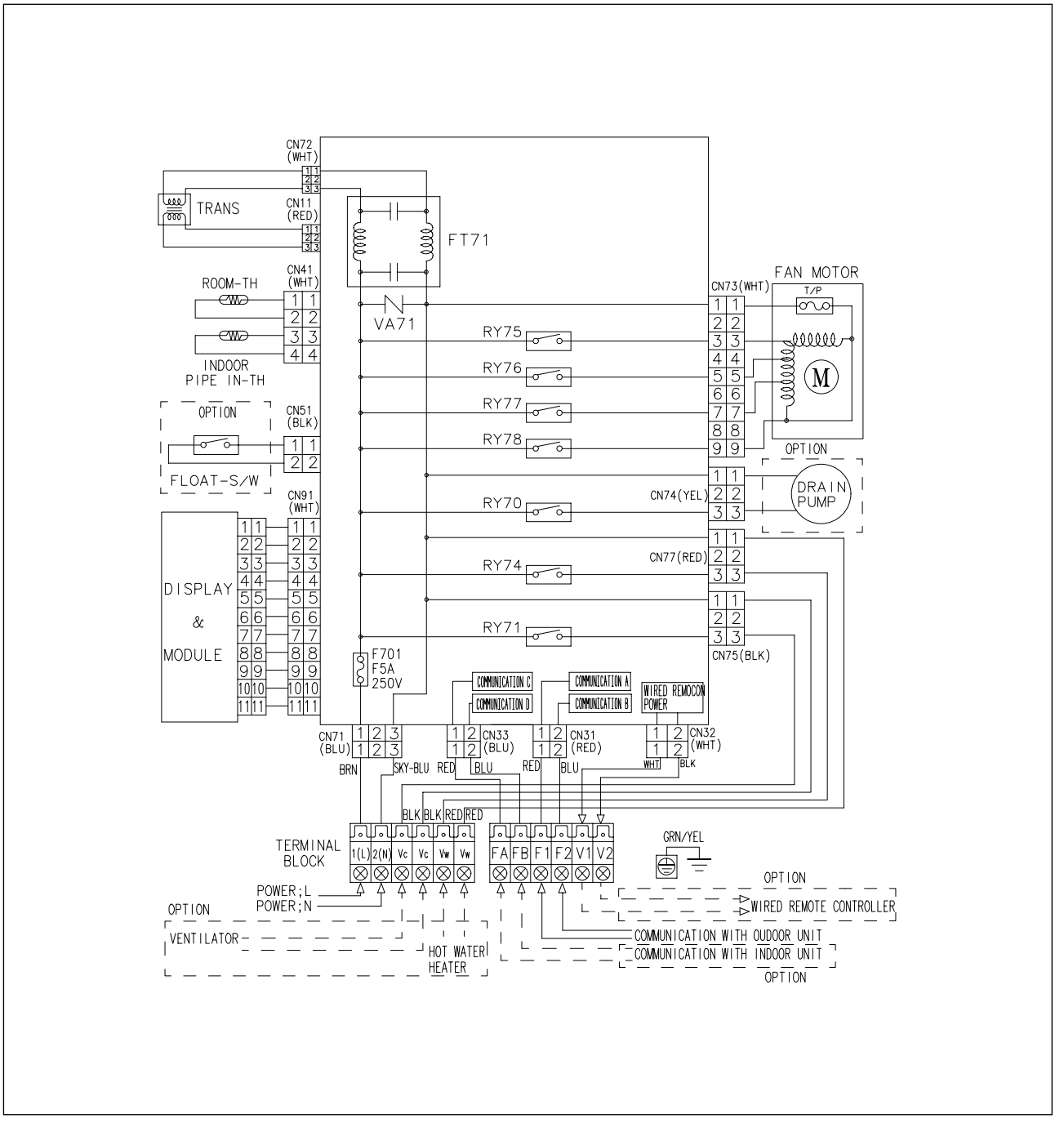
Location No.	Description	Specification
Q903	TR-DIGITAL	DTA114EKA 200MW
Q904	TR-DIGITAL	DTA114EKA 200MW
R201	R-CHIP	10K-J 1/10W,2012
R202	R-CHIP	3.3K-J 1/10W,2012
R203	R-CHIP	1K-J 1/10W,2012
R204	R-CHIP	1K-J 1/10W,2012
R205	R-CHIP	1K-J 1/10W,2012
R301	R-CHIP	120-J 1/10W,2012
R302	R-CHIP	10K-J 1/10W,2012
R303	R-CHIP	10K-J 1/10W,2012
R312	R-CHIP	10K-J 1/10W,2012
R313	R-CHIP	10K-J 1/10W,2012
R314	R-CHIP	10K-J 1/10W,2012
R315	R-CHIP	10K-J 1/10W,2012
R316	R-CHIP	10K-J 1/10W,2012
R317	R-CHIP	10K-J 1/10W,2012
R318	R-CHIP	10K-J 1/10W,2012
R319	R-CHIP	10K-J 1/10W,2012
R401	R-CHIP	24K-F 1/10W,2012
R402	R-CHIP	18K-F 1/10W,2012
R403	R-CHIP	18K-F 1/10W,2012
R404	R-CHIP	330-J 1/10W,2012
R405	R-CHIP	330-J 1/10W,2012
R406	R-CHIP	330-J 1/10W,2012
R501	R-CHIP	10K-J 1/10W,2012
R502	R-CHIP	10K-J 1/10W,2012
R503	R-CHIP	10K-J 1/10W,2012
R504	R-CHIP	330-J 1/10W,2012
R505	R-CHIP	330-J 1/10W,2012
R506	R-CHIP	330-J 1/10W,2012
R513	R-CHIP	10K-J 1/10W,2012
R514	R-CHIP	10K-J 1/10W,2012
R515	R-CHIP	10K-J 1/10W,2012
R516	R-CHIP	10K-J 1/10W,2012
R517	R-CHIP	10K-J 1/10W,2012
R901	R-CHIP	10K-J 1/10W,2012
R902	R-CHIP	10K-J 1/10W,2012
R903	R-CHIP	10K-J 1/10W,2012
R904	R-CHIP	10K-J 1/10W,2012
R905	R-CHIP	1K-J 1/10W,2012
R906	R-CHIP	1K-J 1/10W,2012
R907	R-CHIP	1K-J 1/10W,2012
R908	R-CHIP	1K-J 1/10W,2012
R909	R-CHIP	1K-J 1/10W,2012
R910	R-CHIP	1K-J 1/10W,2012
R911	R-CHIP	1K-J 1/10W,2012

■ **Parts List(cont.)**

Location No.	Description	Specification
RJ01	R-CARBON	12K-J 1/4W
RJ02	R-CARBON	3.3K-J 1/4W
RJ03	R-CARBON	3.3K-J 1/4W
RY71	RELAY-MINIATURE	FTR-F3AA012E 12Vdc/5A
RY74	RELAY-MINIATURE	CS11-12SH 12VDC
RY75	RELAY-MINIATURE	CS11-12SH 12VDC
RY76	RELAY-MINIATURE	FTR-F3AA012E 12Vdc/5A
RY77	RELAY-MINIATURE	FTR-F3AA012E 12Vdc/5A
SW1	SWITCH-DIGITAL	PT65-103 DC24V
VA71	VARISTOR	INR14D561K-RS 560V,2500A
VA72	VARISTOR	TVR14471 470V,4500A
VA73	VARISTOR	TVR14471 470V,4500A
X501	RESONATOR-CERAMIC	10MHZ

8. Wiring Diagram

8-1 Indoor Unit



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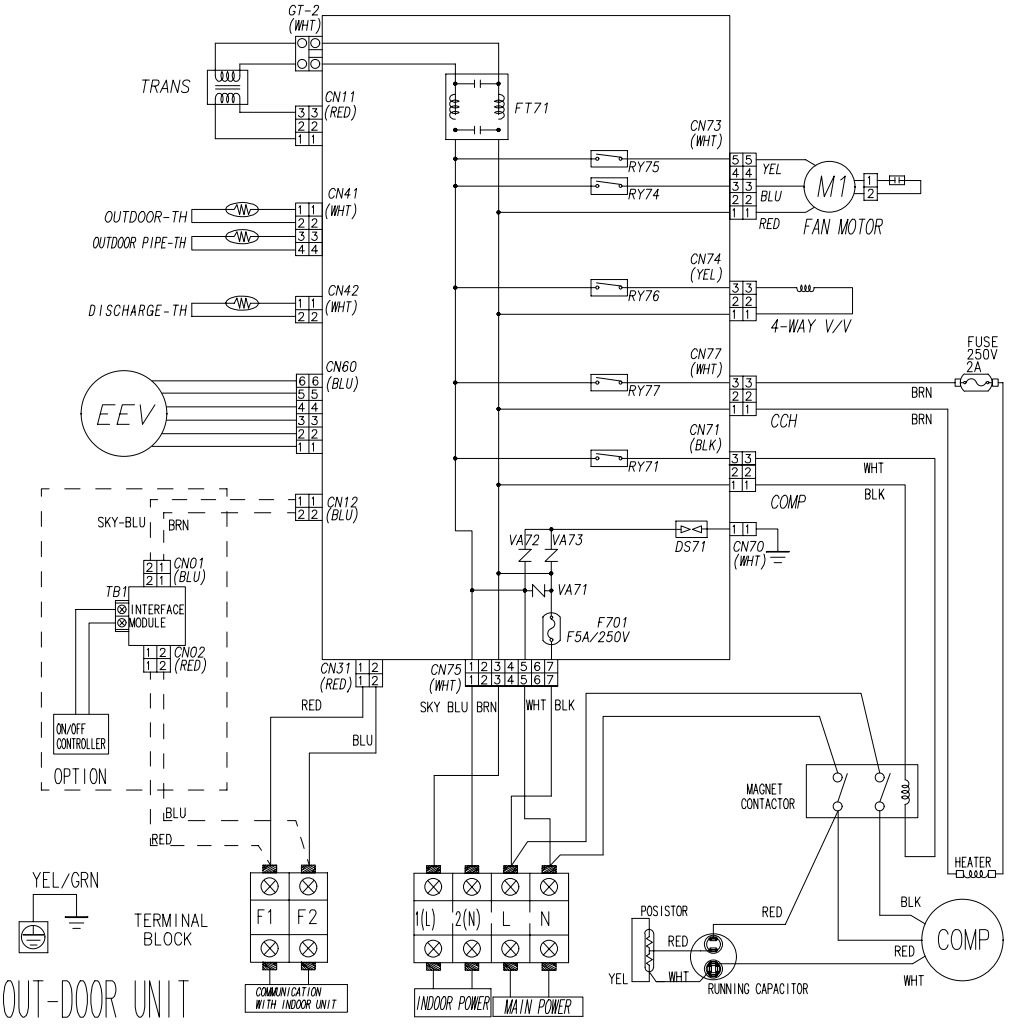
8-2 Outdoor Unit



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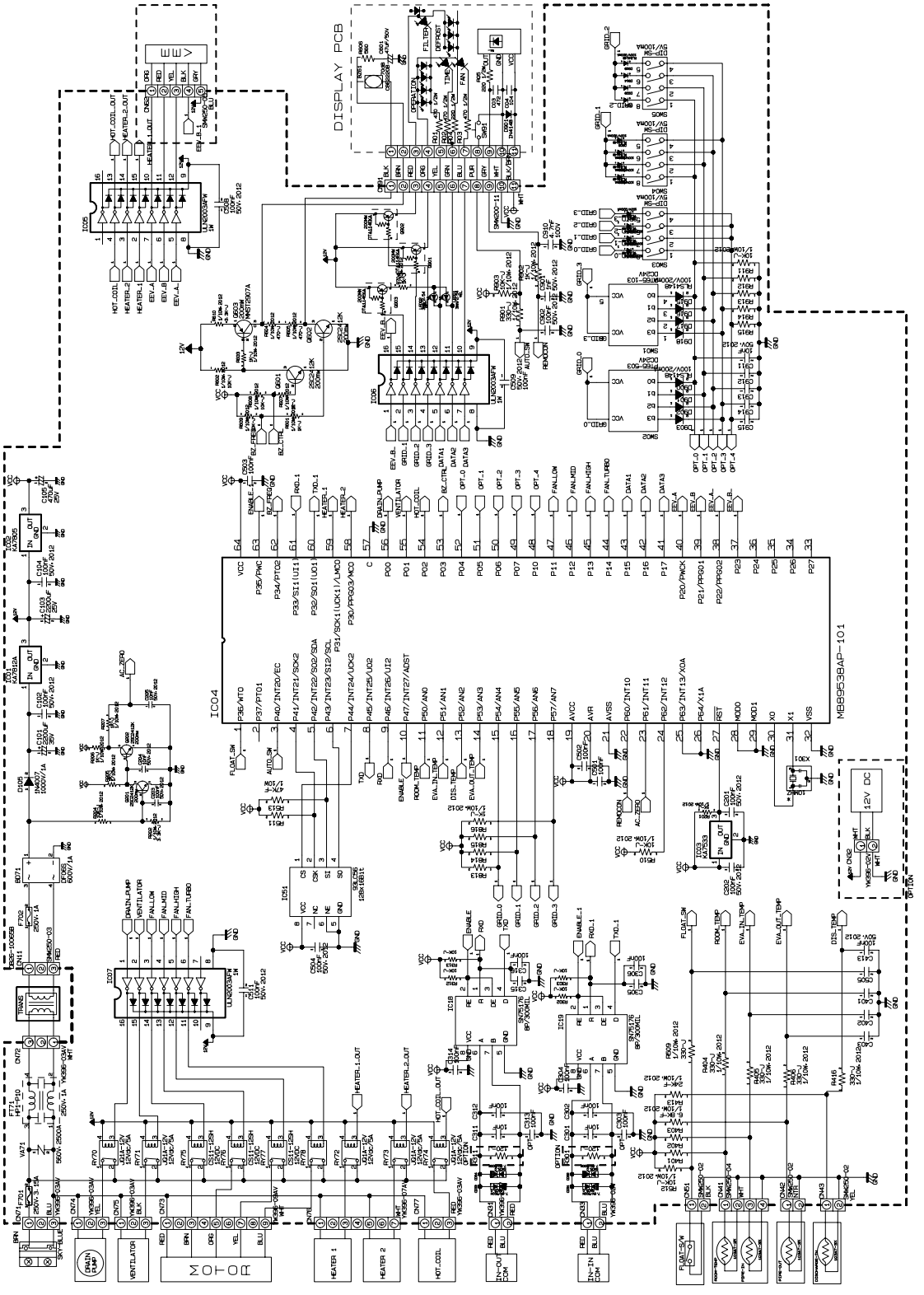
9. Schematic Diagram

9-1 Indoor Unit



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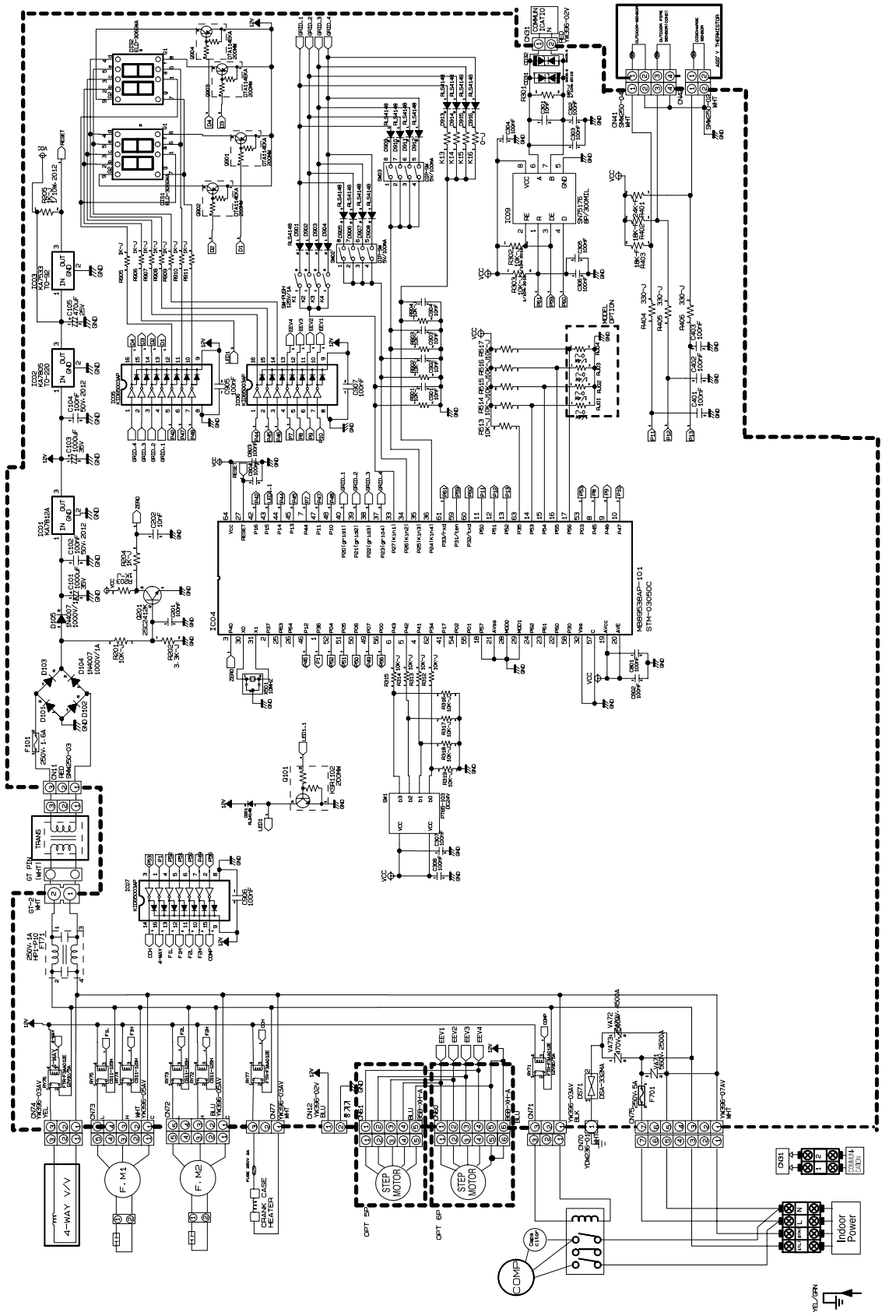
9-2 Outdoor Unit



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Printed in Korea.
Code No. DB98-15108A(1)